

## CLAIMS

What is claimed is:

- 1  
2  
3  
4  
5
1. A method comprising:  
identifying a bitrate template associated with multimedia content; and  
transmitting said multimedia content at a particular bitrate to a  
multimedia node, said particular bitrate based on bitrate data in said bitrate  
template.
- 1  
2  
3
2. The method as in claim 1 wherein identifying comprises:  
locating said bitrate template in a database using multimedia content  
identification data.
- 1  
2
3. The method as in claim 2 wherein said identification data is a serial  
number associated with said multimedia content.
- 1  
2
4. The method as in claim 2 wherein said identification data is a  
checksum of a known unique portion of said multimedia content.
- 1  
2
5. The method as in claim 2 wherein said database is maintained on a  
remote server.
- 1  
2  
3
6. The method as in claim 1 further comprising:  
filling an input buffer at said multimedia node by a particular amount in  
anticipation of a bitrate spike indicated in said bitrate template.
- 1

1 7. The method as in claim 6 wherein filling said input buffer comprises  
2 increasing said particular bitrate to a second, higher bitrate.

1 8. A method for providing efficient bandwidth allocation on a  
2 bandwidth-limited network comprising:  
3 receiving a request for multimedia content from a first multimedia node;  
4 allocating a first amount of bandwidth to supply said multimedia content  
5 to said multimedia node; and  
6 dynamically adjusting said first amount of bandwidth based on a template  
7 of bitrate data indicating changes in bitrate requirements of said multimedia  
8 content.

1 9. The method as in claim 8 wherein said template is retrieved from a  
2 bitrate database.

1 10. The method as in claim 9 wherein said template is identified in said  
2 template database using identification data associated with said multimedia  
3 content.

1 11. The method as in claim 10 wherein said identification data is a serial  
2 number associated with said multimedia content.

1 12. The method as in claim 8 further comprising:  
2 dynamically adjusting said first amount of bandwidth based on a template  
3 of bitrate data indicating changes in bitrate requirements of multimedia content  
4 requested by a second multimedia node.

1 13. The method as in claim 8 wherein said multimedia content is a digital  
2 video disk ("DVD").

1 14. The method as in claim 8 wherein said first amount of bandwidth is  
2 dynamically adjusted upward to fill a buffer at said first multimedia node by a  
3 particular amount in anticipation of an increase in bitrate requirements for said  
4 multimedia content.

1 15. The method as in claim 12 wherein said first amount of bandwidth is  
2 dynamically adjusted upward to fill a buffer at said first multimedia node by a  
3 particular amount in anticipation of an increase in bitrate requirements for  
4 multimedia content transmitted to said second multimedia node.

1 16. The method as in claim 8 wherein said first amount of bandwidth is  
2 maintained until a buffer at said first multimedia node is filled with said  
3 multimedia content.

1 17. The method as in claim 16 wherein said first amount of bandwidth is  
2 maintained until another multimedia node requires additional bandwidth.

1 18. A system comprising:  
2 home media server configured to allocate a first amount of bandwidth to  
3 supply multimedia content to a first multimedia node and to dynamically adjust  
4 said first amount of bandwidth based on a template of bitrate data indicating  
5 changes in bitrate requirements of multimedia content.

1 19. The system as in claim 18 wherein said home media server retrieves  
2 said template based on identification data associated with said multimedia  
3 content.

1 20. The system as in claim 19 wherein said identification data is a serial  
2 number associated with said multimedia content.

1 21. The system as in claim 18 wherein said home media server is further  
configured to:

3 dynamically adjust said first amount of bandwidth based on a template of  
4 bitrate data indicating changes in bitrate requirements of multimedia content  
5 requested by a second multimedia node.

1 22. The system as in claim 18 wherein said multimedia content is a digital  
2 video disk ("DVD").

1 23. The system as in claim 18 wherein said home media server is further  
2 configured to dynamically adjust said first amount of bandwidth upward to fill a  
3 buffer at said first multimedia node by a particular amount in anticipation of an  
4 increase in bitrate requirements for said multimedia content.

1 24. The system as in claim 18 wherein said home media server is further  
2 configured to dynamically adjust said first amount of bandwidth upward to fill a  
3 buffer at said first multimedia node by a particular amount in anticipation of an  
4 increase in bitrate requirements for multimedia content transmitted to a second  
5 multimedia node.

25. The system as in claim 18 wherein said home media server is further configured to maintain said first amount of bandwidth until a buffer at said first multimedia node is filled with said multimedia content.

26. The system as in claim 18 wherein said home media server is further configured to maintain said first amount of bandwidth until another multimedia node requires additional bandwidth.